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Part VI

Environmental Protection Agency

40 CFR Parts 117, 302, and 355
Reportable Quantity Adjustments for Lead Metal, Lead Compounds, Lead-Containing Hazardous Wastes, and Methyl Isocyanate; Proposed Rule

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Parts 117, 302, and 355

[SWH-FRL-3963?]

Reportable Quantity Adjustments for Lead Metal, Lead Compounds, Lead-Containing Hazardous Wastes, and Methyl Isocyanate

AGENCY: U.S. Environmental Protection Agency (EPA).

ACTION: Proposed rule.

SUMMARY: This rule proposes to adjust to 10 pounds the reportable quantities (RQs) for lead metal, 13 lead compounds, 15 waste streams listed under the Resource Conservation and Recovery Act (RCRA) that contain lead, and RCRA characteristic wastes that fail the Toxicity Characteristic Leaching Procedure ("TC wastes") based on their lead constituents. In addition, the rule proposes to adjust the RQ for methyl isocyanate (MIC) to 100 pounds. Section 102 of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA), as amended, requires the Administrator of the U.S. Environmental Protection Agency (EPA) to adjust RQs for CERCLA hazardous substances, including the 31 substances in this rule. Under CERCLA section 103, when a hazardous substance is released into the environment in an amount equal to or greater than its RQ, the person in charge of the vessel or facility from which the release occurred must report immediately to the National Response Center. The RQs for the hazardous substances proposed to be adjusted in today's rule would provide the Agency with information concerning releases of lead metal, lead compounds, lead-containing hazardous wastes, and MIC into the environment at levels that correspond to the relative hazards posed by exposure to these substances.

DATES: Comments must be received on or before July 7, 1992.

ADDRESSES: *Comments:* Comments should be submitted in triplicate to: Emergency Response Division, Attention: Superfund Docket Clerk, Docket Number 102 RQ-31L, Superfund Docket Room M2427, U.S. Environmental Protection Agency, 401 M Street, SW., Washington, DC 20460.

Docket: Copies of materials relevant to this rulemaking are contained in room M2427 at the U.S. Environmental Protection Agency, 401 M Street, SW., Washington, DC 20460 (Docket Number 102 RQ-31L). The docket is available for inpection between hours of 9 a.m. and 4 p.m., Monday through Friday, excluding Federal holidays. Appointments to review the docket can be made by calling 1-202/260-3046. The public may copy up to 100 pages from any regulatory docket at no cost. For 101 pages to more, copies will cost the public $.15 per page.

Release Notification: The toll-free telephone number of the National Response Center is 1-800/425-8802; in the Washington, DC metropolitan area, the number is 1-202/267-2675.

FOR FURTHER INFORMATION CONTACT: Ms. Gerain H. Perry, Response Standards and Criteria Branch, Emergency Response Division (OS-210), U.S. Environmental Protection Agency, 401 M Street, SW., Washington, DC 20460; or the RCRA/Superfund Hotline at 1-800/425-9346 (in the Washington, DC metropolitan area, contact 703/920-9810). The Telecommunications Device for the Deaf (TDD) Hotline number is 1-800/553-7672 (in Washington, DC metropolitan area, contact 703/486-3323).

SUPPLEMENTARY INFORMATION: The contents of today's preamble are listed in the following outline:

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I. Introduction

A. Statutory Authority

Under section 102(b) of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA) (Pub. L. 96-510), 42 U.S.C. 9601 *et seq.*, as amended by the Superfund Amendments and Reauthorization Act of 1986 (SARA) (Pub. L. 99-499), a reportable quantity (RQ) of one pound is established for releases of hazardous substances, except for hazardous substances whose RQs were established pursuant to section 311 of the Clean Water Act (CWA). Section 102(a) of CERCLA authorizes the Administrator of the U.S. Environmental Protection Agency (EPA or "the Agency") to adjust all of these RQs by regulation.

Under CERCLA section 103(a), the person in charge of a vessel or facility from which a hazardous substance has been released in a quantity that equals or exceeds its RQ must immediately notify the National Response Center of the release. This notification requirement serves as a trigger for informing the government of a release so that Federal personnel can evaluate the need for a Federal removal or remedial action and undertake any necessary action in a timely fashion. Under section 104 of CERCLA, the Federal government may respond whenever there is a release or substantial threat of a release of a hazardous substance into the environment. Response activities are to be taken, to the extent practicable, in accordance with the National Oil and Hazardous Substances Pollution Contingency Plan (40 CFR part 300), which was originally developed under the CWA and which has been revised to reflect the responsibilities and authority created by CERCLA.

In addition to the reporting requirement under CERCLA, section 304 of the Emergency Planning and Community Right-to-Know Act of 1986 (EPCRA), also known as title III of SARA, requires owners or operators of certain facilities to report releases of extremely hazardous substances (EHSs) and CERCLA hazardous substances to State and local authorities.[1-4] EPCRA section 304 notification must be given immediately after releases of hazardous substances in quantities equal to or greater than their RQs (or one pound if a reporting trigger is not established by regulation) to the community emergency coordinator for each local emergency planning committee for any area likely to be affected by the release, and to the State emergency response commission of any State likely to be affected by the

[1-4] On January 23, 1989, EPA published a proposed rule to designate all non-CERCLA EHSs as CERCLA hazardous substances (54 FR 3388). On August 30, 1989, EPA published a proposed rule to adjust the RQs for most of these substances (54 FR 35988).

release. These notification requirements apply only to releases that have potential for off-site exposure and that are from facilities at which a "hazardous chemical" (defined by regulations under the Occupational Safety and Health Act of 1970 (29 CFR 1910.1200(c)) and section 311(e) of EPCRA) is produced, used, or stored.

Section 109 of CERCLA and section 325 of EPCRA authorize EPA to assess civil penalties for failure to report releases of hazardous substances that equal or exceed their RQ's. Section 103 of CERCLA authorizes EPA to seek criminal penalties for failure to make a notification pursuant to CERCLA section 103 or for submitting false or misleading information in a notification.

B. Background of this Rulemaking

1. Previous Proposed and Final RQ Adjustments

Adjustments are proposed for three categories of RQs in this rule: (1) Statutory RQs; (2) RQs previously proposed to be adjusted but not yet finalized; and (3) RQs adjusted in previous final rules. All of these RQs will be superseded to the extent that the adjustments proposed in this rule become final and effective. The chronology of the previous proposed and final RQ adjustments is summarized briefly below and is depicted in Table 1.

TABLE 1.—PREVIOUS PROPOSED AND FINAL RQS FOR HAZARDOUS SUBSTANCES WHOSE RQS ARE PROPOSED TO BE ADJUSTED TODAY

Hazardous substance	Statutory RQ	5/25/83[a] (proposed)	4/4/85[b] (proposed)	9/29/86[c] (final)	3/16/87[d] (proposed)	3/2/88[e] (proposed)	8/14/89[f] (final)	8/30/89[g] (proposed)	Today (proposed)
Lead metal	1		5000			100			10
Lead acetate	5000				10	100			10
Lead chloride	5000		100	100					10
Lead fluoborate	5000		100	100					10
Lead fluoride	5000		100	100					10
Lead iodide	5000		100	100					10
Lead nitrate	5000		100	100					10
Lead phosphate	1				10	100			10
Lead stearate	5000		5000	5000		100			10
Lead subacetate	1				100		100		10
Lead sulfate	5000		100	100					10
Lead sulfide	5000		100	5000		100			10
Lead thiocyanate	5000		100	100					10
Methyl isocyanate	1	100							100
Tetramethyl lead	1							100	10
K002	1				1				10
K003	1				1				10
K005	1				1				10
K046	1		100	100					10
K048	1				1				10
K049	1				1				10
K051	1				1				10
K061	1				1				10
K062	1				1				10
K064	1								10
K065	1								10
K066	1								10
K069	1				1				10
K086	1				1				10
K100	1				1				10
Lead-containing TC wastes	1				100				10

[a] 48 FR 23565
[b] 50 FR 13514
[c] 51 FR 34534
[d] 52 FR 8140
[e] 53 FR 6762
[f] 54 FR 33426
[g] 54 FR 35988.

EPA initially proposed to adjust the statutory one-pound RQ for methyl isocyanate (MIC) to 100 pounds in the May 25, 1983 notice of proposed rulemaking (NPRM) (48 FR 23565). After the December 3, 1984 release of MIC in Bhopal, India and the resultant loss of human life, EPA withdrew this proposed RQ adjustment in the April 4, 1985 final rule (50 FR 13456) and retained the statutory one-pound RQ, pending further analysis of the data on MIC. The Agency is proposing an adjusted RQ of 100 pounds for MIC in today's rulemaking based on an evaluation of reproductive and respiratory effects under the Agency's chronic toxicity criterion and the application of the secondary RQ adjustment criteria of biodegradation, hydrolysis, and photolysis (see Section II.D).

Eight of the substances whose RQs are being proposed for adjustment today (lead chloride, lead fluoborate, lead fluoride, lead iodide, lead nitrate, lead sulfate, lead thiocyanate, and waste stream K046 [5]) received final RQ adjustments of 100 pounds based on their chronic toxicity in the September 29, 1986 final rule (51 FR 34534).

In an NPRM published on March 16, 1987 (52 FR 8140), EPA proposed to adjust the statutory RQ for lead subacetate (one pound) to 100 pounds based on chronic toxicity; this 100-pound proposed RQ was promulgated on August 14, 1989 (54 FR 33426).

In the same NPRM, EPA proposed to adjust the statutory RQs for lead acetate

[5] Industrial sources and constituents of all RCRA waste streams for which RQs are being adjusted today are described in Table 302.4 of this proposed rule.

(5000 pounds) and lead phosphate (one pound) to 10 pounds based on potential carcinogenicity. EPA also proposed one-pound RQ adjustments for 11 lead-containing waste streams (K002, K003, K005, K048, K049, K051, K061, K062, K069, K086, and K100). The RQs for these 11 waste streams were proposed at one pound on March 16, 1987 because at that time: (1) The RQs for hexavalent chromium compounds (e.g., calcium chromate), which are constituents of each of these waste streams, were being proposed at one pound; and (2) the existing RQ for lead metal was one pound.[6] The RQ for hexavalent chromium compounds was changed to 10 pounds in the August 14, 1989 final rule, based on public comments received on the March 16, 1987 NPRM.

An RQ of 100 pounds was proposed in the March 16, 1987 NPRM for RCRA characteristic wastes that were toxic by virtue of their lead constituents. Since the March 16, 1987 NPRM, the procedure for determining the toxicity of RCRA characteristic wastes has been changed from the extraction procedure (EP) to the toxicity characteristic leaching procedure (TCLP) (55 FR 11798, March 29, 1990).[7] RCRA characteristic wastes that fail the TCLP test are referred to as TC wastes. RQs for the metal constituents of TC wastes are based on the RQs for soluble salts of the metal in question (52 FR 8148, March 16, 1987). The reason for using the RQ for the soluble salts, rather than the RQ for the metal itself, is that the TCLP (similar to the earlier extraction procedure) tests for the presence of the soluble salts.

In the March 2, 1988 NPRM (53 FR 6762), EPA reproposed 100-pound RQ adjustments for lead acetate and lead phosphate. In the same NPRM, EPA reproposed the RQ adjustment for lead metal at 100 pounds, and proposed RQ readjustments of 100 pounds for lead stearate and lead sulfide.[8] The RQ adjustments proposed in the March 2, 1988 NPRM were based on the Human Health Assessment Group's (HHAG's) re-evaluation of the potential carcinogenicity of lead metal and lead compounds and its determination that these hazardous substances were weight-of-evidence Group B2 potential carcinogens.

Three lead-containing waste streams (K064, K065, and K066) were listed as hazardous under RCRA section 3001 on September 3, 1988 (53 FR 35412).[9]

Because the RQs for these waste streams were not proposed for adjustment, the statutory one-pound RQ remained applicable.

Finally, EPA proposed to designate tetramethyl lead as a CERCLA hazardous substance on January 23, 1989 (54 FR 3388) and to adjust its statutory RQ from one pound to 100 pounds on August 30, 1989 (54 FR 35988). Although the rule to designate tetramethyl lead as a hazardous substance has not yet been finalized, EPA has decided to propose a 10-pound adjusted RQ for tetramethyl lead in today's rule, together with the 10-pound adjusted RQs for lead metal and the other lead compounds. Proposing an adjusted RQ for tetramethyl lead in today's rule prior to promulgation of the rule designating tetramethyl lead as a CERCLA hazardous substance is similar to the Agency's previous proposal to adjust the RQ for tetramethyl lead on August 30, 1989, based on the January 23, 1989 proposed designation of this substance.

2. Developments Leading to Today's Proposed Rule

On November 30, 1988, at the request of outside parties and as part of a broader review of EPA's scientific policy regarding lead, EPA's Science Advisory Board and Clean Air Scientific Advisory Committee formed a Joint Study Group. This Group reviewed the HHAG determination that lead metal and lead compounds are weight-of-evidence Group B2 potential carcinogens. In the August 14, 1989 final rule to adjust RQs for potential carcinogens (54 FR 33435), EPA stated that until the Joint Study Group review of the HHAG determination was complete, it would withhold final RQ adjustments for lead metal, lead acetate, lead phosphate, lead stearate, and lead sulfide that were proposed to be adjusted in the March 2, 1988 NPRM, and for 11 lead-containing waste streams proposed to be adjusted in the March 16, 1987 NPRM. In December 1989, the Joint Study Group issued a report containing its findings and recommendations.[10] The Joint Study Group supported the HHAG's evaluation of the potential carcinogenicity of lead metal and lead compounds and, in particular, its determination that these hazardous substances are weight-of-evidence Group B2 potential carcinogens.[11]

The Joint Study Group also recommended that EPA reassess its regulatory strategy concerning lead to emphasize the prevention of adverse neurotoxic effects in children. Recent available data show that: (1) A correlation exists between exposure to lead (measured as blood lead levels) and neurotoxic effects; and (2) children are particularly susceptible to these effects. For a discussion of the studies that form the basis for these conclusions, see Section II.C.1 of this preamble.

One aspect of the Agency's methodology for adjusting the RQs of CERCLA hazardous substances, the chronic toxicity criterion, is designed to consider the neurotoxicity of these substances. However, when this criterion was last applied to lead metal and lead compounds in 1983, the extent of absorption of lead was not sufficiently known. Therefore, an accurate relationship between environmental lead levels and toxic concentrations within the body could not be established.

Since 1983, a number of studies have determined that various forms of lead are absorbed through oral, dermal, and inhalation routes, and have established a linear relationship between dietary lead intake and blood lead levels in

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[6] As the Agency has stated (54 FR 33440, August 14, 1989), the RQ for a hazardous waste stream is the lowest RQ of any of its constituents. One pound is the lowest possible RQ level. Although a 5000-pound RQ was proposed for lead metal in the April 4, 1985 proposed rule, the statutory one-pound RQ for lead metal was retained in the September 29, 1986 final rule.

[7] This change applies to all RCRA characteristic wastes, including those that are toxic by virtue of their lead constituents.

[8] The statutory RQ for lead metal (one pound) was proposed to be adjusted to 5000 pounds in an April 4, 1985 NPRM (50 FR 13514). Lead stearate and lead sulfide received RQ adjustments of 5000 pounds in the September 29, 1986 final rule (51 FR 34534).

[9] The listing of waste streams K064, K065, and K066 as hazardous under RCRA was remanded to EPA for further explanation of the specific studies that support the Agency's decision to list these wastes. See *American Mining Congress v. U.S. Environmental Protection Agency*, No. 88-1835 (D.C. Cir., July 10, 1990). The Agency is documenting the technical evidence to support the listing of these three waste streams as RCRA hazardous wastes and will include such evidence in a future Federal Register notice.

[10] U.S. EPA, Report of the Joint Study Group on Lead: Review of Lead Carcinogenicity and EPA Scientific Policy on Lead (EPA-SAB-EHC-90-001), December 1989, available for inspection at room M2427, U.S. EPA, 401 M Street, SW., Washington, DC 20460.

[11] In response to comments from the Joint Study Group, HHAG is finalizing its report, the Evaluation of the Potential Carcinogenicity of Lead and Lead Compounds, that documents the data supporting the B2 classification. The Joint Study Group also supported the HHAG's overall analysis of the potency factor for lead and lead compounds conducted for the March 2, 1988 NPRM, which indicates that lead and lead compounds have a low potency and therefore should be assigned to potency Group 3. This potency group assignment results in a low hazard ranking and a 100-pound primary criteria RQ for lead and lead compounds based on potential carcinogenicity. It is important to note that today's proposed lead-related RQ adjustments are not based on potential carcinogenicity or on the 1991 HHAG Report; rather, they are based on the neurotoxic effects of lead in children.

children. Based on one of these studies,[12] the Agency has estimated that 16 percent of environmental lead to which an individual child is exposed is absorbed into the child's bloodstream. Taken together with the evidence from studies conducted prior to 1983, the results of the more recent studies show that there is a relationship between children exhibiting symptoms typical of lead exposure and their blood lead levels, and that children may be at greater risk of neurological damage than adults when exposed to lead metal and lead compounds because their physiological defense mechanisms are not fully developed. These studies have led to the general acceptance in the scientific community of using blood lead levels to determine prior lead exposure.[13]

EPA has re-applied its chronic toxicity criterion to lead metal, lead compounds, and lead-containing hazardous wastes using the more recent studies on lead's neurotoxic effects in children. As a result, EPA today is proposing 10-pound RQ adjustments for lead metal and 13 lead compounds based on chronic toxicity. The Agency also is proposing adjusted RQs of 10 pounds for 15 lead-containing waste streams: K002, K003, K005, K046, K048, K049, K051, K061, K062, K064, K065, K066, K069, K086, and K100.[14] The lowest RQ of the constituents of each of these waste streams (which determines the RQs for the waste streams themselves) is the 10-pound proposed RQ for lead metal and lead compounds.[15] In addition, the RQ for TC wastes that are toxic by virtue of their lead constituents also is being proposed at 10 pounds because 10-pound RQs are being proposed today for soluble lead salts, such as lead acetate (and for other lead compounds).

The proposed adjusted RQs for lead metal, lead compounds, and lead-containing hazardous wastes will provide the Agency with information concerning releases of lead into the environment at levels that correspond to the relative hazards posed by exposure to these hazardous substances. Upon notification of such releases, the Agency will be able to evaluate the need for a Federal removal or remedial action consistent with its strategy to reduce overall environmental exposure to lead.

Today's proposed RQ adjustments would, when promulgated, amend Table 302.4 of 40 CFR 302.4, which lists RQs for CERCLA hazardous substances, and Appendices A and B of 40 CFR part 355, which list CERCLA RQs for EHSs. In addition, some of today's proposed RQ adjustments would amend Table 117.3 of 40 CFR 117.3, which lists RQs established for hazardous substances under section 311(b)(4) of the CWA.

3. Agency Efforts to Reduce Exposure to Lead

This proposed rulemaking is an integral part of an EPA strategy to reduce environmental exposure to lead. The goal of this strategy is to reduce lead exposures to the fullest extent possible, with particular emphasis on decreasing health risks to children, who are particularly sensitive to lead exposure (see Section II.C.1).

Specifically, the Agency intends to reduce the amount of lead introduced into the environment by developing methods to identify geographic "hot spots," implementing a lead pollution prevention program using regulatory mechanisms, minimizing lead pollution through traditional pollution control devices, developing and transferring abatement technology to lead pollution sources, and ensuring the availability of environmentally sound recycling of lead.

To date, the Agency has made progress toward reducing environmental exposure to lead. There have been large reductions in concentrations of lead in air and in food products since the late 1970's, primarily due to the phase-down of the use of lead in gasoline. While data are not available on changes to concentrations of lead in soil over time, it is likely that reductions in soil deposition have occurred as air emissions have declined.[16]

Section II of this preamble discusses the rationale for RQ adjustments in general, describes the methodology used in adjusting RQs from their statutory levels, and explains the specific RQ adjustments proposed in this rulemaking. Section III of this preamble addresses RQ adjustments being proposed today under section 311 of the CWA. Section IV describes the adjustment to the RQs for two EHSs (tetramethyl lead and MIC) in 40 CFR part 355 that are proposed in today's rule. Section V provides a summary of the analyses supporting this proposed rule.

II. Reportable Quantity Adjustments

A. Introduction

In this rulemaking, the Agency is proposing to adjust RQs based on specific scientific and technical criteria that relate to the possibility of harm from the release of a hazardous substance into the environment. The quantity released is but one factor considered by the government when assessing the need to respond to such a release. Other factors, assessed on a case-by-case basis, include but are not limited to: (1) The location of the release; (2) its proximity to drinking water supplies or other valuable resources; and (3) the likelihood of exposure or injury to nearby populations. The RQ adjustments proposed today will, if promulgated, enable the Agency to focus its resources on those releases that are more likely to pose potential threats to public health or welfare or the environment. These RQ adjustments also will relieve the regulated community and emergency response personnel from the burden of making and responding to reports of releases that are less likely to pose such threats.

B. Summary of the Reportable Quantity Adjustment Methodology

The Agency has wide discretion in adjusting the statutory RQs for hazardous substances under CERCLA. Administrative feasibility and practicality are important considerations. The Agency's methodology for adjusting the RQs of individual hazardous substances begins with an evaluation of the intrinsic physical, chemical, and toxicological properties of each hazardous substance.[17] The intrinsic properties examined—called "primary criteria"—are aquatic toxicity, mammalian toxicity (oral, dermal, and inhalation), ignitability, reactivity, chronic toxicity, and potential carcinogenicity.

Generally, for each intrinsic property, the Agency ranks hazardous substances on a scale, associating a specific range of values on each scale with an RQ value of 1, 10, 100, 1000, or 5000

[12] Ryu, J.E., E.R. Ziegler, S.R. Nelson, and S.J. Fomon. 1983. Dietary Intake of Lead and Blood Lead Concentration in Early Infancy. Am. J. Dis., Child 137:686.

[13] U.S. EPA. 1986. Air Quality Criteria for Lead. See this document for a summary of all data concerning the effects of lead exposure on neurological development. For further information on the effects of low blood lead levels on the neurological development of children, see Exhibit 3-4 of the Technical Background Document to Support Rulemaking Pursuant to CERCLA Section 102, Volume 6, available for inspection at Room M2427, U.S. EPA, 401 M Street SW., Washington DC 20460.

[14] The method for determining when an RQ or more of a hazardous substance in a mixture or solution has been released is codified at 40 CFR 302.6(b).

[15] In addition, some of these waste streams contain cadmium and hexavalent chromium, which have 10-pound RQs.

[16] U.S. EPA. 1990. U.S. Environmental Protection Agency Strategy for Reducing Lead Exposures. Office of Pesticides and Toxic Substances.

[17] A different methodology applies for assigning adjusted RQs to radionuclides (see 54 FR 22524, May 24, 1989).

pounds.[18] These RQ levels were originally established pursuant to CWA section 311 (see 40 CFR part 117 and 44 FR 50776, August 29, 1979). The data for each hazardous substance are evaluated using various primary criteria; each hazardous substance may receive several tentative RQ values based on its particular intrinsic properties. The lowest of the tentative RQs becomes the "primary criteria RQ" for that substance.

The 10-pound RQs being proposed today for lead metal, lead compounds, and lead-containing hazardous wastes are based on the tentative RQs these hazardous substances received when evaluated for chronic toxicity.[19] The 100-pound RQ proposed for MIC is based on the chronic toxicity RQ of 10 pounds and the susceptibility of MIC to certain degradative processes. Under the methodology for developing chronic toxicity tentative RQs, each substance is first assigned two rating values, one based on the dose that causes a particular effect, and one based on the severity of the effect. The dose rating values range from one to 10, with 10 representing the most toxic substances. The effect rating values also range from one to 10, with 10 representing the most severe effect. The product of the dose and effect rating values for the substance yields a composite score between one and 100, which is directly proportional to the toxicity of the substance. Chronic toxicity tentative RQs are then assigned on the basis of the composite score as shown in Table 2:

TABLE 2.—RELATIONSHIP OF COMPOSITE SCORES TO CHRONIC TOXICITY TENTATIVE RQS

Composite score	RQ (lbs.)
81–100	1
41–80	10
21–40	100
6–20	1,000
1–5	5,000

After the primary criteria RQs are assigned, substances are further evaluated for their susceptibility to certain degradative processes, which are used as secondary adjustment criteria. These natural degradative processes are biodegradation, hydrolysis, and photolysis (BHP).[20] If a hazardous substance, when released into the environment, degrades relatively rapidly to a less hazardous form by one or more of the BHP processes, its RQ (as determined by the primary RQ adjustment criteria), is generally raised one level.[21] This adjustment is made because the relative potential for harm to public health or welfare or the environment posed by the release of such a substance is reduced by these degradative processes. Conversely, if a hazardous substance degrades to a more hazardous product after its release, the original substance is assigned an RQ equal to the RQ for the more hazardous substance, which may be one or more levels lower than the RQ for the original substance. The downward adjustment is appropriate because the hazard posed by the release of the original substance is increased as a result of BHP.

After hazardous substances are evaluated for the primary and secondary criteria, EPA has proposed that substances be further evaluated by applying the methodology for developing threshold planning quantities (TPQs) pursuant to EPCRA section 302 using the following steps.[22] First, the screening criteria used to identify EHSs (see 51 FR 41570, November 17, 1986) would be applied to the hazardous substances being evaluated. Second, a level of concern would be established for each hazardous substance that meets the screening criteria.[23] Third, the dispersion potential of each of these hazardous substances would be assessed by considering its physical state and volatility. The level of concern and dispersion potential would be combined to produce an index value, and the screened substances would be ranked according to this index value. Tentative RQs would be assigned to substances using a table of index value ranges (see 54 FR 35990). If the tentative RQ assigned in this way is lower than the primary and (if applicable) secondary criteria RQ, this tentative RQ resulting from application of the TPQ criteria would become the adjusted RQ.[24] Because EPA has determined that application of the TPQ criteria to the substances evaluated in today's proposed rule does not affect any of the proposed RQs (see Section II.C.2 and Section II.D), the content of this proposed rule would be the same whether the current RQ adjustment methodology, or the proposed expanded methodology, is used.

C. Basis of Proposed RQ Adjustments for Lead Metal, Lead Compounds, and Lead-Containing Hazardous Wastes

1. Summary of Data on Neurotoxic Effects of Lead in Children

As mentioned in Section I.B.2 of this preamble, available data show a clear relationship between blood lead levels in children and a variety of neurotoxic effects.[25] Children may be at greater risk of neurological damage because their nervous systems are undergoing rapid development, their physiological defense mechanisms against toxicants are not as effective as those of adults, and they characteristically ingest foreign objects.

Studies in children demonstrate conclusively that low blood lead levels are associated with slight neurological damage, and that the severity of neurological damage increases with increasing blood lead levels. Findings of severe nervous system damage at high blood lead levels in certain studies further confirm the validity of findings of similar, but less severe, damage at lower levels.[26]

Studies of children with lower blood lead levels (10 to 15 μg/dL) show less severe but still detectable neurological changes, including a positive correlation between blood lead levels and neurological defects. A series of recent prospective studies in children support

[18] RQ levels for potential carcinogens are 1, 10, and 100 pounds; for ignitable and reactive hazardous substances, 10, 100, 1000, and 5000 pounds; and for radionuclides, 10^{-2}, 10^{-1}, 1, 10, 100, and 1000 curies.

[19] For further information on the chronic toxicity RQ adjustment methodology, see the Technical Background Document to Support Rulemaking Pursuant to CERCLA Section 102, Volume 2, available for inspection at Room M2427, U.S. EPA, 401 M Street, SW., Washington, DC 20460.

[20] For further information on the methodology for applying BHP, see the Technical Background Document to Support Rulemaking Pursuant to CERCLA section 102, Volume 1, March 1985, available for inspection at room M2427, U.S. EPA, 401 M Street, SW., Washington, DC 20460.

[21] No RQ level increase based on BHP occurs if the primary criteria RQ is already at its highest possible level (100 pounds for potential carcinogens and 5000 pounds for all other types of hazardous substances except radionuclides). BHP is not applied to radionuclides.

[22] The application of the TPQ criteria as part of the RQ adjustment methodology was proposed on August 30, 1989 (54 FR 35988).

[23] This level of concern is based on the Immediately Dangerous to Life and Health (IDLH) level developed by the National Institute for Occupational Safety and Health. Because most substances do not have published IDLH values, however, levels of concern are usually estimated from acute mammalian toxicity data for the most sensitive species.

[24] For a more detailed description of how the TPQ criteria are used as part of the RQ adjustment methodology, see the Technical Background Document to Support Adjustment of the Reportable Quantities of the Extremely Hazardous Substances Designated as CERCLA Hazardous Substances, Volume 5, available for inspection in room M2427, U.S. EPA, 401 M Street, SW., Washington, DC 20460.

[25] See U.S. EPA, 1990. Air Quality Criteria for Lead, Supplement to the 1986 Addendum, Volume I.

[26] For discussion of and citations to the studies on the effects of high blood lead levels, see section 3 of the Technical Background Document to Support Rulemaking Pursuant to CERCLA section 102, Volume 6, available for inspection at room M2427, U.S. EPA, 401 M Street SW., Washington, DC 20460.

the relationship between low levels of lead exposure and detectable neurological damage. Prospective studies identify a group of individuals who may be at risk from long-term exposure and then monitor exposure, as well as the health effects resulting from that exposure, over time. Prospective studies in a group of preschool children, for example, showed impaired responses in tests of mental development and the formation of concepts at blood lead levels of 10 to 25 μg/dL.[27] These impairments occurred in children who were between 24 and 57 months of age. Similarly, a different study showed that children with blood lead levels below 15 μg/dL, but above background levels, experienced impairment in mental and language development tests.[28] Prospective experiments are particularly important because adverse effects in an exposed child can be studied from early pregnancy until childhood. During this period, levels of environmental lead can be accurately and continuously assessed. Prospective studies, therefore, avoid many of the problems associated with retrospective studies, in which exposure levels must be estimated months or years after exposure began.

Based on the findings of these studies, the Agency believes that exposure of children to lead resulting in blood lead levels of as low as 10 to 15 μg/dL represents a serious health concern. This conclusion is further supported by consistent findings in a large body of experimental animal studies.[29]

2. Application of the RQ Adjustment Methodology to Neurotoxicity Data

In light of the more recent data on the neurotoxic effects of lead on children, EPA has decided to reassess the RQs for lead metal as well as the lead compounds and lead-containing hazardous wastes that are CERCLA hazardous substances using the RQ adjustment methodology (see Section II.B of this preamble). Application of the RQ adjustment methodology for a CERCLA hazardous substance begins with the derivation of a "primary criteria RQ" for each of several primary criteria, including chronic toxicity (which considers neurotoxic effects). Based on the application of the chronic toxicity criterion used to assign tentative RQs (described in Section II.B) to the neurotoxicity data on lead summarized above, EPA has calculated composite scores of between 44.8 and 51.1 for lead metal and each of the individual lead compounds listed in Table 1.[30] As indicated by Table 2 in Section II.B, the composite scores for lead and lead compounds correspond to tentative chronic toxicity RQs of 10 pounds. Therefore, lead metal and all lead compounds listed in Table 1 will receive proposed RQ adjustments of 10 pounds based on chronic toxicity.

The Agency considered the individual characteristics, including bioavailability[31] and molecular weight, of lead metal and each of the lead compounds in deriving the RQs proposed in today's rule. The specific chemical forms of lead have not been assigned differential bioavailabilities because, based on a review of the available literature on humans, the absorption rates of different chemical forms of lead appear to be about equal.[32] The Agency has adjusted the dietary lead intake levels for lead metal and each of the lead compounds by calculating the product of the intake level for lead metal and the fractional contribution of lead, based on the molecular weight of each compound.[33] These differences in dietary lead intake levels for lead metal and each of the lead compounds result in a range of composite scores (see discussion above) that correspond to a chronic toxicity RQ of 10 pounds.

EPA is soliciting public comments containing data that show a relationship between characteristics of specific lead compounds (such as water solubility, molecular weight, and particle size[34]) and the bioavailability of the lead from these compounds. Specifically, data are requested if differences in these characteristics would support the establishment of RQs other than 10 pounds for any of the lead-containing hazardous substances whose RQs are proposed to be adjusted in today's rule.

After evaluation under the primary criteria, lead metal and lead compounds were evaluated for the secondary RQ adjustment criteria of BHP. This evaluation did not result in any changes to the primary criteria RQs.

In addition to the evaluations based on the primary and secondary criteria, EPA has proposed that the TPQ criteria be incorporated into the RQ adjustment methodology (see Section II.B of this preamble). Of the lead-related substances whose RQs are proposed to be adjusted in today's rule, only tetramethyl lead meets the first of the TPQ criteria (i.e., it falls within the limits of the EHS screening criteria). Evaluation of tetramethyl lead's toxicity and its dispersion potential yields an index value corresponding to a tentative RQ of 10 pounds, which is equal to the primary criteria RQ for tetramethyl lead. Therefore, none of the primary criteria RQs for lead metal, lead compounds, and lead-containing hazardous wastes whose RQs are proposed to be adjusted in today's rule would be affected by application of the TPQ criteria. If any change is made to the way in which the TPQ criteria have been proposed to be used as part of the RQ methodology, and such a change affects the RQ for tetramethyl lead, this RQ will be reproposed for public comment in a future **Federal Register** notice.

3. RQ Adjustments Proposed Today for Lead Metal, Lead Compounds, and Lead-Containing Hazardous Wastes

As a result of the application of the RQ adjustment methodology to the neurotoxicity data on lead metal and lead compounds, EPA today is proposing to adjust the RQs for 14 individual lead-containing hazardous substances, 15 lead-containing hazardous waste streams, and the group of RCRA characteristic wastes that fail the TCLP based on their lead constituents.[35] These 30 lead-related

[27] Bellinger, D. et al., 1989, Low-level Lead Exposure and Early Development in Socioeconomically Advantaged Urban Infants. In: Smith, M.A., Grant, L.D., Sors, A.I., eds: Lead Exposure and Child Development: An International Assessment. Lancaster, United Kingdom.

[28] Ernhart, C.B. and M. Morrow-Flucak, 1989. Low-level Lead Exposure and Intelligence in the Early Preschool Years. In: Smith, M.A., Grant, L.D., Sors, A.I., eds. Lead Exposure and Child Development: An International Assessment. Lancaster, United Kingdom.

[29] For a discussion of the neurological effects of lead exposure in experimental animals, see section 3 of the Technical Background Document to Suppport Rulemaking Pursuant to CERCLA section 102, Volume 6, available for inspection at room M2427, U.S. EPA, 401 M Street, SW., Washington DC 20460.

[30] For a table providing the dose and effect ratings for each of these substances, see Exhibit 3–5 in the Technical Background Document to Support Rulemaking Pursuant to CERCLA section 102, Volume 6, available for inspection at room M2427, U.S. EPA, 401 M Street, SW., Washington, DC 20460.

[31] Bioavailability represents the rate and extent to which a substance is absorbed or otherwise assimilated into body tissue following exposure by various routes, such as ingestion.

[32] U.S. EPA, 1986. Air Quality Criteria for Lead, Volumes I–IV. Available from the National Technical Information Service (NTIS), Springfield, VA, PB87–142378.

[33] The dose derived from this intake level was used as the minimum effective dose for purposes of RQ determination. For more detailed discussion, see sections 2 and 3 of the Technical Background Document to Support Rulemaking Pursuant to CERCLA section 102, Volume 6, and the Reportable Quantity Document for each individual lead compound, available for inspection at room M2427, U.S. EPA; 401 M Street, SW., Washington DC 20460.

[34] Releases of lead metal need to be reported only when the particles of lead metal are less than 100 micrometers in diameter (see 40 CFR 302.8(d) and 50 FR 13461, April 4, 1985).

[35] These RCRA characteristic wastes are considered as one hazardous substance for the purposes of today's proposed rule.

proposed RQ adjustments, as well as the proposed RQ adjustment for MIC, are shown in Table 1 (see Section I.B.1 of this preamble).

The RQs for all 14 individual hazardous substances are being proposed for adjustment to 10 pounds based on the primary criterion of chronic toxicity; none of their RQs was adjusted upward or downward based on BHP.[36] The RQ for a hazardous waste stream is the lowest of the RQs of the substances that are constituents of the waste stream. Each of the RQs for the 15 lead-containing hazardous waste streams is being adjusted to 10 pounds because the lowest RQ for any of the hazardous constituents of the waste streams is 10 pounds.[37] Each TC waste that is toxic by virtue of its lead constituents receives an RQ of 10 pounds, which is equal to the RQ for soluble lead salts. For further discussion of how EPA derives the RQs for TC wastes, see Section I.B.1 of this preamble.

One other lead compound (tetraethyl lead), and one lead-containing waste stream (K052), were assigned 10-pound RQs based on chronic toxicity in a previous final rule (51 FR 34534, September 29, 1986). Because the application of the RQ adjustment methodology to the neurotoxicity data on lead metal and lead compounds results in 10-pound RQs for these two substances, no adjustment to their existing 10-pound RQ levels need be proposed today, and the primary criterion on which their RQs are based (chronic toxicity) remains the same. However, the neurotoxicity data summarized in Section II.C.1 above provide additional support for the 10-pound RQs for tetraethyl lead and waste stream K052. These neurotoxicity date are available for inspection in the docket for this rulemaking (Docket Number 102 RQ–31L).[38]

The RQ for one other lead compound, lead arsenate, is not being proposed to be adjusted today. Lead arsenate was assigned a one-pound RQ is based on the potential carcinogenicity of the arsenate ion in the August 14, 1989 final rule (54 FR 33426). Because the current one-pound RQ for lead arsenate is based on the potential carcinogenicity of the arsenate ion and is lower than the 10-pound RQS proposed today for lead metal, the lead compounds discussed herein, and lead-containing waste streams, the RQ for lead arsenate does not need to be readjusted.

EPA received 10 comment letters on the 100-pound RQ adjustments for lead metal and four lead compounds published in the March 2, 1998 NPRM and two comment letters on the proposed one-pound RQs for the 11 waste streams published in the March 16, 1987 NPRM. EPA will publish its responses to the comments in these letters (along with its responses to comments received on today's proposed RQ adjustments) in the preamble to the final rule that promulgates the RQs proposed today for lead metal and lead compounds.

D. Proposed RQ Adjustment for Methyl Isocyanate

As mentioned in Section I.B.1, EPA initially proposed to adjust the statutory one-pound RQ for MIC to 100 pounds in the May 25, 1983 NPRM (48 FR 23565). After the December 3, 1984 release of MIC in Bhopal, India, which resulted in over 2,000 human fatalities and approximately 170,000 injuries, EPA withdrew this proposed RQ adjustment in the April 4, 1985 final rule (50 FR 13456) and retained the statutory one-pound RQ, pending further analysis of the data on MIC.

In the March 2, 1988 NPRM (53 FR 6762), EPA announced that it had obtained additional toxicological data on MIC, including new animal studies documented in "Environmental Health Perspectives," Volume 72, and that it was awaiting human toxicological and epidemiological data associated with the release of MIC in Bhopal. EPA has completed its analysis of the animal and human data on the toxic effects of MIC. The discussion below summarizes these data, their application to the RQ adjustment methodology, and the proposed RQ for MIC.

At Bhopal, contamination of an MIC storage tank increased the pressure within the tank until a key pressure valve burst. Gases containing approximately 40,000 pounds of MIC then surged through the relief vent lines and overwhelmed the scrubber system, escaping unneutralized to the surrounding environment and city of Bhopal. Studies of pregnant women exposed to MIC as a result of this incident show an unusually high mortality rate among fetal and newborn children.[39] For example, one survey conducted nine months after the release of MIC found that miscarriage occurred in approximately 44 percent of all pregnancies, a miscarriage rate four to seven times higher than the average rate in the Bhopal region.[40] The same study found that 14 percent of the infants that had survived birth died within 30 days, a mortality rate five to six times higher than the regional rate.

Reproductive studies on laboratory mice exposed to MIC provide further evidence to support the relationship between exposure to MIC and significant increases in fetal and newborn deaths. One study of pregnant mice exposed to MIC at concentrations of 1 or 3 parts per million (ppm) during a critical period of fetal development demonstrated a positive correlation between concentration of MIC exposure and adverse fetal effects.[41] The mice in the group exposed to the higher concentration of MIC (3 ppm) demonstrated more severe effects, including a high rate of fetal mortality through 21 days of age. These effects were exhibited by mice in numerous litters (i.e., the effects were not isolated in a single litter), indicating a low probability that the effects were caused by genetic sensitivity to MIC in particular mice.

Additional animal studies have found a significant relationship between exposure to MIC and impaired lung function.[42] MIC is a lung irritant that stimulates the secretion of excessive amounts of mucus and other protective fluids in the lungs. One study of laboratory mice found that overstimulation of these fluids contributes to impaired lung function and may result in death by asphyxiation.[43] Mice that survived

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[36] Releases of lead metal need to be reported only when the particles of lead metal are less than 100 micrometers in diameter (see 40 CFR 302.8(d) and 50 FR 13461, April 4, 1985).

[37] All of these waste streams contain at least one of the lead compounds proposed to be adjusted to 10 pounds today. In addition, some of these waste streams contain cadmium and hexavalent chromium, which have 10-pound final RQs.

[38] See section 3 of the Technical Background Document to Support Rulemaking Pursuant to CERCLA section 102, Volume 6, and the Reportable Quantity Document for Tetraethyl Lead, available for inspection at room M2427, U.S. EPA, 401 M Street, SW., Washington, DC 20460.

[39] For discussions of and citations to the studies on the effects of high concentrations of MIC, see section 4 of the Technical Background Document to Support Rulemaking Pursuant to CERCLA Section 102, Volume 6, available for inspection at room M2427, U.S. EPA, 401 M Street, SW., Washington, DC 20460.

[40] Varma, D.R., 1987. Epidemiological and Experimental Studies on the Effect of Methyl Isocyanate on the Course of Pregnancy. In: Hook, G.E., Lucier, G.W., eds. Environmental Health Perspectives. 72:153–157.

[41] Schwetz, B.A. et al., 1987. Methyl Isocyanate: Reproductive and Developmental Toxicology Studies in Swiss Mice. In: Hood, G.E., Lucier, G.W., eds. Environmental Health Perspectives. 72:149–152.

[42] Fowler, E.H. and D.E. Dodd, 1987. Respiratory Tract Changes in Guinea Pigs, Rats, and Mice Following a Single Six-hour Exposure to Methyl Isocyanate Vapor. In: Hook, G.E., Lucier, G.W., eds. Environmental Health Perspectives. 72:109–116.

[43] Bucher, J.R. and L. Uraith, 1989. Carcinogenicity and Pulmonary Pathology Associated With a Single, Two-hour Inhalation Exposure of Laboratory

Continued

exposure to MIC by inhalation exhibited scar formation in the lungs and decreased respiratory function.

Based on these human and animal studies of the adverse reproductive and respiratory effects of MIC, EPA has re-evaluated MIC using the RQ adjustment methodology. (see Section II.B of this preamble). Evaluation of MIC based on the chronic toxicity methodology used to assign tentative RQs (which considers reproductive and respiratory effects) resulted in a composite score of 46.[44] As shown in Table 2 in Section II.B; this composite score corresponds to a tentative chronic toxicity RQ of 10 pounds. This 10-pound RQ based on chronic toxicity was the lowest tentative RQ resulting from application of the primary RQ adjustment criteria to MIC.[45]

After the application of the primary RQ adjustment criteria, MIC was evaluated under the secondary criteria of BHP. Because MIC undergoes rapid hydrolysis in water to form methylamine (which has a 100-pound RQ) and several non-CERCLA substances, [46] the RQ for MIC was raised from the primary criteria level of 10 pounds to 100 pounds based on BHP. For further discussion of the BHP data on MIC, see Section 2 of the Technical Background Document to Support Rulemaking Pursuant to CERCLA section 102, Volume 6, available for inspection in the docket for this rulemaking (Docket Number 102–RQ–31L). Application of the TPQ methodology also would result in a 100-pound RQ. EPA is proposing a 100-pound RQ for MIC in today's rule. If any change is made to the way in which the TPQ criteria have been proposed to be used as part of the RQ methodology, and such a change affects the RQ for MIC, this RQ will be reproposed for public comment in a future **Federal Register** notice.

In its analysis of the toxicological data on MIC, EPA reviewed a number of studies designed to evaluate delayed, chronic effects in experimental animals following single, brief inhalation exposures similar to those that occurred at Bhopal. Extensive studies of pulmonary changes in rats were conducted in which the animals were observed for periods as long as six months following a single exposure to 3, 10, or 30 ppm of MIC.[47] These studies indicated the delayed development of restrictive lung lesions, persistent airway obstruction, and pulmonary hypertension. A close correlation appears to exist between laboratory animals and Bhopal survivors with respect to chronic pulmonary and cardiopulmonary effects.

Under the current RQ adjustment methodology, no criteria exist for addressing chronic or delayed effects resulting from single exposures to hazardous substances. Therefore, the Agency was not able to take into account the delayed pulmonary effects observed in rodents exposed by inhalation to single doses of MIC.

EPA is considering revisions to the current RQ adjustment methodology that will allow the consideration of delayed or chronic effects following single exposures to hazardous substances. At such time as these criteria are developed and implemented, the Agency will re-evaluate the RQs for those substances, such as MIC, for which data on long-term effects of acute exposures are available.

III. Reportable Quantity Adjustments Under Section 311 of the Clean Water Act

In the April 4, 1985 final rule (50 FR 13456), EPA amended 40 CFR 117.3 to make RQs adjusted under CERCLA the applicable RQs for notification of discharges of hazardous substances pursuant to CWA section 311. Ten of the hazardous substances whose CERCLA RQs are proposed to be adjusted today—lead acetate, lead chloride, lead fluoborate, lead fluoride, lead iodide, lead nitrate, lead stearate, lead sulfate, lead sulfide, and lead thiocyanate—also have RQs under the CWA. Thus, the 10-pound RQ adjustments proposed for these 10 substances apply to both CERCLA and CWA section 311. Where there is a hazardous substance in a quantity equal to or greater than an RQ into navigable waters, a single report to the National Response Center by the person in charge will satisfy the notification requirements of both statutes. Of course, the owner or operator of the facility may still need to notify State and local authorities under EPCRA section 304. (Note, however, that section 304 does not apply to vessels.) For further discussion of the relationship between CERCLA RQs and CWA section 311 RQs, see the May 25, 1983 proposed rule preamble (48 FR 23569) and the April 4, 1985 final rule preamble (50 FR 13473).

IV. Reportable Quantities Listed in 40 CFR Part 355

Appendices A and B of 40 CFR Part 355, which list EHSs and their TPQs under EPCRA, also show the RQs for EHSs. Two of the substances whose RQs are proposed to be adjusted in today's rule, tetramethyl lead and MIC, are also EHSs. The RQ for tetramethyl lead is proposed to be adjusted from the statutory one-pound level to 10 pounds in today's rule. The RQ for MIC is proposed to be adjusted from the statutory one-pound level to 100 pounds. Therefore, to fully reflect the proposed RQ adjustment for tetramethyl lead and MIC, EPA is today proposing to revise not only Table 302.4 of 40 CFR part 302 (which lists the RQs for all CERCLA hazardous substances), but also appendices A and B of 40 CFR part 355.

V. Regulatory Analyses

A. Executive Order No. 12291

Executive Order 12291 requires that regulations be classified as major or non-major for purposes of review by the Office of Mangement and Budget (OMB). According to Executive Office 12291, major rules are regulations that are likely to result in:

(1) An annual effect on the economy of $100 million or more; or

(2) A major increase in costs or prices for consumers, individual industries, Federal, State, or local goverment agencies, or geographic regions; or

(3) Significant adverse effects on competition, employment, investment, productivity, innovation, or on the ability of United States-based enterprises to compete with foreign-based enterprises in domestic or export markets.

As demonstrated by an economic analysis performed by the Agency, available for inspection at room M2427, U.S. Environmental Protection Agency, 401 M Street, SW., Washington, DC 20460, this proposed rule is nonmajor, because, if promulgated, it would result in estimated net cost savings of $221,000 annually. In this proposed rule, RQs for 19 hazardous substances would be raised and RQs for 12 hazardous substances would be lowered from their current levels (see Table 1 in Section

Rodents to Methyl Isocyanate. Chappell, J., ed. Journal of the National Cancer Institute. 81(20):1586–1587.

[44] For further information on the chronic toxicity data for MIC and for its dose and effect ratings, see section 4 of the Technical Background Document to Support Rulemaking Pursuant to CERCLA section 102, Volume 6, available for inspection at room M2427, U.S. EPA, 401 M Street, SW., Washington, DC 20460.

[45] An evaluation of MIC based on acute inhalation toxicity resulted in a tentative RQ of 100 pounds. Because the 10-pound, tentative chronic toxicity RQ (based on reproductive and respiratory effects) is lower than the 100-pound tentative acute toxicity RQ, the primary criteria RQ for MIC is 10 pounds.

[46] These non-CERCLA substances include carboxymethylamine and, under certain conditions, N,N'-dimethylurea.

[47] Bucher, J.R., 1987. Methyl Isocyanate: A Review of Health Effects Research Since Bhopal. Fundamental and Applied Toxicology. 9:367–379.

I.B.1 of this preamble). The estimated net effect of these 31 proposed RQ adjustments would be to reduce by approximately 233 the number of reportable releases for these hazardous substances each year (see the economic analysis mentioned above). The estimated $221,000 annual net cost savings reflect only those effects of the RQ adjustments that are: (1) Readily quantifiable in dollars; and (2) associated with the release notification requirements under CERCLA section 103 and EPCRA section 304 (including the associated activities of recordkeeping, notification processing, monitoring, and response).

This proposed rule has been submitted to OMB for review, as required by Executive Order 12291.

B. Regulatory Flexibility Act

The Regulatory Flexibility Act of 1980 requires that a Regulatory Flexibility Analysis be performed for all rulemakings that are likely to have a "significant impact on a substantial number of small entities." A Regulatory Flexibility Analysis is not necessary for this proposed rule, because the upper-bound total cost of compliance to small firms is negligible.

See the Regulatory Impact Analysis of Reportable Quantity Adjustments Under Sections 102 and 103 of the Comprehensive Environmental Response, Compensation, and Liability Act, Volume I, March 1985, available for inspection at room M2427, U.S. Environmental Protection Agency, 401 M Street, SW., Washington, DC 20460. Therefore, I hereby certify that today's proposed rule will not have a significant impact on a substantial number of small entities. As a result, no Regulatory Flexibility Analysis is necessary.

C. Paperwork Reduction Act

The information collection requirements contained in this proposed rule have been approved by OMB under the provisions of the Paperwork Reduction Act, 44 U.S.C. 3501 et seq. The public reporting burden for the collection of information pursuant to CERCLA section 103 is estimated to vary from 2 to 5 hours per response, with an average of 2.1 hours per response, including time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. These information collection requirements have been assigned OMB control number 2050–0046. The public reporting burden for the collection of information pursuant to EPCRA section 304 is estimated to be 5 hours per response (OMB control number 2050–0092).

Send comments regarding the burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Chief, Information Policy Branch, PM–223, U.S. Environmental Protection Agency, 401 M Street, SW., Washington, DC 20460; and to the Office of Information and Regulatory Affairs, Office of Managment and Budget, Washington, DC 20503, marked "Attention: Desk Officer for EPA."

List of Subjects

40 CFR Part 117

Hazardous substances, Penalties, Reporting and recordkeeping requirements, Water pollution control.

40 CFR Part 302

Air pollution control, Chemicals, Emergency Planning and Community Right-to-Know Act, Extremely hazardous substances, Hazardous chemicals, Hazardous materials, Hazardous materials transportation, Hazardous substances, Hazardous wastes, Intergovernmental relations, Natural resources, Pesticides and pests, Reporting and recordkeeping requirements, Superfund, Waste treatment and disposal, Water pollution control.

40 CFR Part 355

Air pollution control, Chemical accident prevention, Chemical emergency preparedness, Chemicals, Community emergency response plan, Community right-to-know, Contingency planning, Emergency Planning and Community Right-to-know Act, Extremely hazardous substances, Hazardous substances, Intergovernmental relations, Reportable quantity, Reporting and recordkeeping requirements, Superfund Amendments and Reauthorization Act, Threshold planning quantity.

Dated: April 30, 1992.

William K. Reilly,

Administrator.

For the reasons set out in the preamble, it is proposed to amend title 40, chapter I of the Code of Federal Regulations as follows:

PART 117—DETERMINATION OF REPORTABLE QUANTITIES FOR HAZARDOUS SUBSTANCES

1. The authority citation for part 117 continues to read as follows:

Authority: Secs. 311 and 501(a), Federal Water Pollution Control Act (33 U.S.C. 1251 et seq.), ("the Act") and Executive Order 11735.11.

2. Section 117.3 is amended by revising the following entries in table 117.3 to read as set forth below. The note preceding Table 117.3 is republished without change.

§ 117.3 Determination of reportable quantities.

Table 117.3—Reportable Quantitites of Hazardous Substances Designated Pursuant to Section 311 of the Clean Water Act

* * * * *

Note.—The first number under the column headed "RQ" is the reportable quantity in pounds. The number in parentheses is the metric equivalent in kilograms. For convenience, the table contains a column headed "Category" which lists the code letters "X," "A," "B," "C," and "D" associated with reportable quantities of 1, 10, 100, 1000, and 5000 pounds, respectively.

Material	Category	RQ in pounds (kilograms)
* * * * *		
Lead Acetate	A	10
* * * * *		
Lead chloride	A	10
Lead fluoborate	A	10
Lead fluoride	A	10
Lead iodide	A	10
Lead nitrate	A	10
Lead stearate	A	10
Lead sulfate	A	10
Lead sulfide	A	10
Lead thiocyanate	A	10
* * * * *		

PART 302—DESIGNATION, REPORTABLE QUANTITIES, AND NOTIFICATION

3. The authority citation for Part 302 continues to read as follows:

Authority: 42 U.S.C. 9602, 9603, and 9604; 33 U.S.C. 1321 and 1361.

4. Section 302.4 is amended by revising the following entries and by adding a new entry for "Tetramethyl lead" in Table 302.4 and Appendix A to read as set forth below. The appropriate footnotes to Table 302.4 are republished without change. The note preceding Table 302.4 is republished without change.

§ 302.4 Designation of hazardous substances.

* * * * *

Note.—The numbers under the column headed "CASRN" are the Chemical Abstracts Service Registry Numbers for each hazardous substance. Other names by which each hazardous substance is identified in other statutes and their implementing regulations

are provided in the "Regulatory Synonyms" column. The "Statutory RQ" column lists the RQs for hazardous substances established by section 102 of CERCLA. The "Statutory Source" column indicates the statutory source for hazardous substances defined in section 101(14) of CERCLA or designated udner section 102 of CERCLA: "1" indicates that the statutory source is section 311(b)(4) of the Clean Water Act, "2" indicates that the source is section 307(a) of the Clean Water Act, "3" indicates that the source is section 112 of the Clean Air Act, and "4" indicates that the source is RCRA section 3001. The "RCRA Waste Number" column provides the waste identification numbers assigned to various substances by RCRA regulations. The column headed "Category" lists the code letters, "X," "A," "B," "C," and "D," which are associated with reportable quantities of 1, 10, 100, 1000, and 5000 pounds, respectively. The "Pounds (kg)" column provides the reportable quantity adjustment for each hazardous substance in pounds and kilograms.

TABLE 302.4—LIST OF HAZARDOUS SUBSTANCES AND REPORTABLE QUANTITIES

[NOTE: All comments/notes are located at the end of this table]

Hazardous substance	CASRN	Regulatory synonyms	Statutory			Final RQ	
			RQ	Code †	RCRA waste No.	Category	Pounds (Kg)
Acetic acid, lead (2+) salt	301-04-2	Lead acetate	5000	1,4	U144	A	10(4.54)
Lead ††	7439-92-1		1*	2		A	10(4.54)
Lead acetate	301-04-2	Acetic acid, lead salt	5000	1,4	U144	A	10(4.54)
Lead, bis(acetato-O)tetrahydroxytri	1335-32-6	Lead subacetate	1*	4	U146	A	10(4.54)
Lead chloride	7758-95-4		5000	1		A	10(4.54)
Lead fluoborate	13814-96-6		5000	1		A	10(4.54)
Lead fluoride	7783-46-2		1000	1		A	10(4.54)
Lead iodide	10101-63-0		5000	1		A	10(4.54)
Lead nitrate	10099-74-8		5000	1		A	10(4.54)
Lead phosphate	7446-27-7	Phosphoric acid, lead salt	1*	4	U145	A	10(4.54)
Lead stearate	7428-48-0 1072-35-1 52652-59-2 56189-09-4		5000	1		A	10(4.54)
Lead subacetate	1335-32-6	Lead, bis(acetato-O)tetrahydroxytri	1*	4	U146	A	10(4.54)
Lead sulfate	15739-80-7 7446-14-2		5000	1		A	10(4.54)
Lead sulfide	1314-87-0		5000	1		A	10(4.54)
Lead thiocyanate	592-87-0		5000	1		A	10(4.54)
Phosphoric acid, lead (2+) salt (2:3)	7446-27-7	Lead phosphate	1*	4	U145	A	10(4.54)
Tetramethyl lead	75-74-1		1*	5		A	10(4.54)
Unlisted Hazardous Wastes:							
Characteristic of Toxicity:							
Lead (D008)			1*	4	D008	A	10(4.54)
K002—Wastewater treatment sludge from the production of chrome yellow and orange pigments.			1*	4	K002	A	10(4.54)
K003—Wastewater treatment sludge from the production of molybdate orange pigments.			1*	4	K003	A	10(4.54)
K005—Wastewater treatment sludge from the production of chrome green pigments.			1*	4	K005	A	10(4.54)
K046—Wastewater treatment sludges from the manufacturing, formulation and loading of lead-based initiating compounds.			1*	4	K046	A	10(4.54)
K048—Dissolved air flotation (DAF) float from the petroleum refining industry.			1*	4	K048	A	10(4.54)
K049—Slop oil emulsion solids from the petroleum refining industry.			1*	4	K049	A	10(4.54)
K051—API separator sludge from the petroleum refining industry.			1*	4	K051	A	10(4.54)
K061—Emission control dust/sludge from the primary production of steel in electric furnaces.			1*	4	K061	A	10(4.54)

TABLE 302.4—LIST OF HAZARDOUS SUBSTANCES AND REPORTABLE QUANTITIES—Continued

[NOTE: All comments/notes are located at the end of this table]

Hazardous substance	CASRN	Regulatory synonyms	Statutory RQ	Statutory Code †	Statutory RCRA waste No.	Final RQ Category	Final RQ Pounds (Kg)
K062—Spent pickle liquor from steel finishing operations.			1*	4	K062	A	10(4.54)
K069—Emission control dust/sludge from secondary lead smelting.			1*	4	K069	A	10(4.54)
K086—Solvent washes and sludges, caustic washes and sludges, or water washes and sludges from cleaning tubs and equipment used in the formulation of ink from pigments, driers, soaps, and stabilizers containing chromium and lead.			1*	4	K086	A	10(4.54)
K100—Waste leaching solution from acid leaching of emission control dust/sludge from secondary lead smelting.			1*	4	K100	A	10(4.54)

†—indicates the statutory source as defined by 1, 2, 3, 4, or 5 below:
1—indicates that the statutory source for designation of this hazardous substance under CERCLA is CWA Section 311(b)(4)
2—indicates that the statutory source for designation of this hazardous substance under CERCLA is CWA Section 307(a)
4—indicates that the statutory source for designation of this hazardous substance under CERCLA is RCRA Section 3001
5—indicates SARA Title III Section 302 substances designated under CERCLA Section 102(a)
1*—indicates that the 1-pound RQ is a CERCLA statutory RQ
††—No reporting of releases of this hazardous substance is required if the diameter of the pieces of the solid metal released is equal to or exceeds 100 micrometers (0.004 inches)

Appendix A—Sequential CAS Registry Number List of CERCLA Hazardous Substances

CASRN	Hazardous substance
75741	Tetramethyl lead.
301042	Acetic acid, lead salt. Lead acetate.
592870	Lead thiocyanate.
1072351	Lead stearate.
1314870	Lead sulfide.
1335326	Lead, bis(acetato-O) tetrahydroxytri. Lead subacetate.
7428480	Lead stearate.
7439921	Lead.
7446142	Lead sulfate.
7446277	Lead phosphate. Phosphoric acid, lead (2+) salt (2:3).
7758954	Lead chloride.
7783462	Lead fluoride.
10099748	Lead nitrate.
10101630	Lead iodide.
13814965	Lead fluoborate.
15739807	Lead sulfate.
52652592	Lead stearate.
56189094	Lead stearate.

PART 355—EMERGENCY PLANNING AND NOTIFICATION

5. The authority citation for part 355 continues to read as follows:

Authority: 42 U.S.C. 11002, 11004, and 11048.

6. Part 355 is amended by revising the following entries in appendices A and B.

APPENDIX A TO PART 355 —THE LIST OF EXTREMELY HAZARDOUS SUBSTANCES AND THEIR THRESHOLD PLANNING QUANTITIES

[Alphabetical Order]

CAS No.	Chemical name	Notes	Reportable quantity* (pounds)	Threshold planning quantity (pounds)
75–74–1.	Tetramethyllead.	i	10	100

Notes:
*Only the statutory or final RQ is shown. For more information, see 40 CFR Table 302.4.

(i) Chemicals on the original list that do not meet toxicity criteria but because of their high production volume and recognized toxicity are considered chemicals of concern ("Other chemicals").

APPENDIX B TO PART 355 —THE LIST OF EXTREMELY HAZARDOUS SUBSTANCES AND THEIR THRESHOLD PLANNING QUANTITIES

[CAS Number Order]

CAS No.	Chemical name	Notes	Reportable quantity* (pounds)	Threshold planning quantity (pounds)
75–74–1.	Tetramethyllead.	i	10	100

Notes:
*Only the statutory or Final RQ is shown. For more information, see 40 CFR Table 302.4.

(i) Chemicals on the original list that do not meet toxicity criteria but because of their high production volume and recognized toxicity are considered chemicals of concern ("Other chemicals").

[FR Doc. 92–10591 Filed 5–7–92; 8:45 am]
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Friday, May 8, 1992

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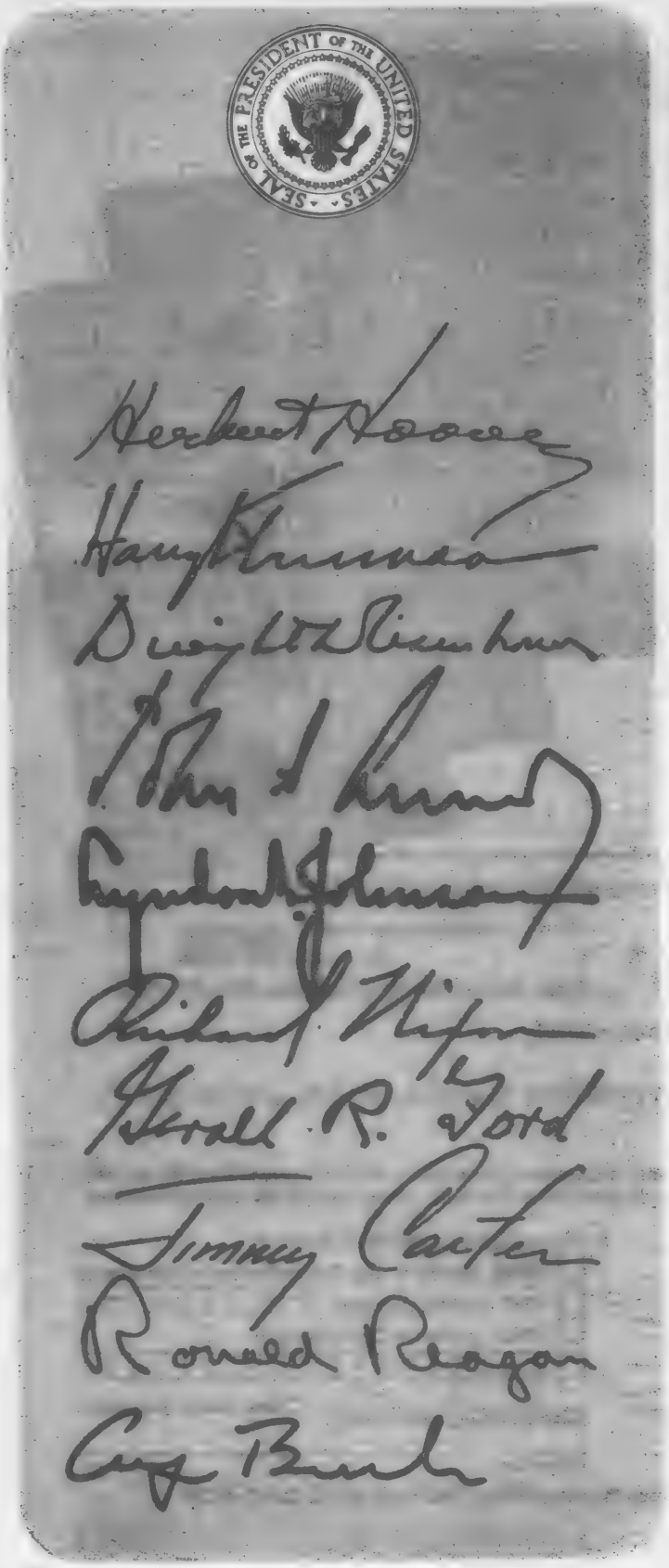

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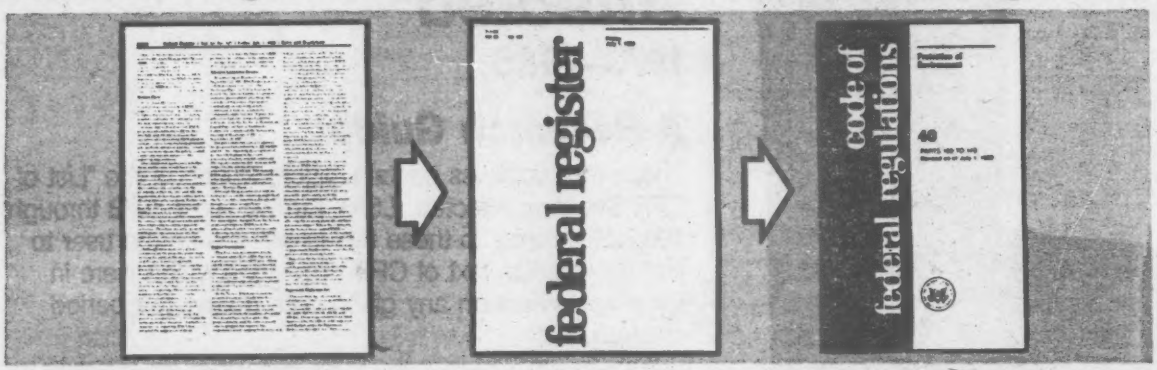

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